Discourse and Practice of Participatory Flood Risk Management in Belfast, UK

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Abstract

The introduction of the Floods Directive signals a move from flood protection toward flood risk management in the European Union. Public participation is highlighted in the Floods Directive as being instrumental to effective implementation of this new approach. This study utilised document analysis, non-participant observation, a questionnaire survey, and interviews to evaluate the discourse and practice of participation in the implementation of the Floods Directive in Belfast, United Kingdom. Flood risk management processes in Belfast are found to be high on participatory rhetoric but low on meaningful engagement. The participatory process is lacking in transparency, does not encourage the active participation of interested parties and has not been clearly communicated to key publics. Opportunities to increase meaningful public participation in the process remain underutilised, and the establishment of local flood forums has provided little opportunity for meaningful engagement. Some actions of governance agencies could be best characterised as facilitating the responsibilisation of risk and are designed to manage risk to agencies rather than address flooding issues.

1. Introduction

Increasing community vulnerability to flooding and rising costs of hard-engineering solutions has shifted flood management strategies away from flood protection toward flood risk management (Brown and Damery, 2002; Conrad and Daoust, 2008). The risk

management approach, as advanced by the Floods Directive[1] (2007/60/EC), aims to address high levels of complexity and uncertainty associated with flood management issues (Johnson and Priest, 2008; Evers et al., 2012). The European Union (EU) wide shift from risk protection to risk management signals a growing realisation that flooding issues cannot be wholly addressed through engineering solutions (Krieger, 2012; 2013). In contrast with the flood protection approach, which emphasized the role of experts, the Floods Directive stresses the importance of public participation in flood risk management.

This study assesses the participatory approach to flood risk management in Belfast, United Kingdom (UK). The paper provides the first critical analysis of a local flood forum in the UK. Public participation in risk management is reviewed in the next section. The institutional framework for flood risk management in Belfast is then outlined. This is followed by an account of the study site and methodology. Findings relating to the discourse and practice of participation in flood risk management in Belfast, and study participants' perceptions of management processes, are then presented. The paper concludes with a discussion of these findings in the context of participatory flood risk management.

2. Public Participation and Flood Risk Management

Participatory flood risk management has many benefits. Proponents of participation in risk management advocate it as a mechanism for increasing public interest in decision-making and for placing public knowledge, opinions and aspirations at the centre of

[1] A Directive is a legal act of the EU that provides Member States with a specific set of objectives without dictating how these should be achieved.

management processes (Few et al., 2007; Reed, 2008). Active public participation has resulted in: effective implementation of flood risk plans; increased preparedness and resilience; increased trust in government agencies; strengthened legitimacy and accountability; and enhanced decision-making (Power, 1997; Stern and Fineberg, 1996; Hood et al., 2001; O'Sullivan et al., 2012; Yamada, 2011; Rouillard et al., 2014). Actively engaging the public in flood risk management can aid decision-making by encouraging a sense of shared ownership of management processes, resultant plans and future flood issues (Marttunen and Hämäläinen, 2008). A study of flood risk decision-making in Austria, for example, found that participation was mutually beneficial to public participants and planners; the public were able to integrate local knowledge and preferences into decision-making processes, and planners were able to gain acceptance for decisions (Gamper, 2008). In essence, the quality of hazard mitigation plans, and the likelihood of them being implemented, tends to increase with higher levels of public participation (Stevens et al., 2010).

Although public participation in management processes is critical to successful hazard mitigation efforts (Stevens et al., 2010; Edelenbos and Klijn, 2006; Pearce, 2003) it is often difficult to foster sustained and meaningful engagement (Hauck et al., 2014). Meaningful public participation in risk management is dependent on three interrelated conditions: effective communication; public receptivity to being involved in participatory processes, which is largely dependent on public perception and awareness of risks being addressed; and processes that foster two-way dialogue between the public and risk management agencies.

2.1 Effective Communication

Effective communication should inform the public about risk management processes, the roles of various actors in the process, risks being addressed and how they may participate (O'Sullivan et al., 2012). Risk communication should engender a willingness amongst the public to participate in risk management processes (Stern and Fineberg, 1996; Hauck et al., 2014). Participatory opportunities must be publicised in a manner to gain the attention of all those who are likely to be affected by these processes. Public spheres in which political issues are deliberated upon can often be profoundly undemocratic (Hansson et al. 2013), and in specialist areas, the democracy of individual citizens can often be replaced by a de facto democracy of organised interests (Andersen and Burns, 1996). Inequalities can be multiplied if communication about participatory processes reinforce undemocratic or unequal norms (Hansson et al., 2013). Therefore, one of the key challenges for participatory processes is mitigating potential biases through the adequate representation of those affected by a decision, creating more clarity and legitimacy (Abelson et al., 2003).

Communication strategies must outline the roles of actors in risk management processes. Ambiguity around agency roles may ultimately give rise to public frustration and a belief that agencies are unwilling to take responsibility for flooding issues. In a study of risk communication in Finland, Ireland, Italy and Scotland, O'Sullivan et al., (2012) found that a lack of clarity in Ireland around agency roles created a perception among interviewees that a responsibility shifting approach had been adopted by agencies and that agencies were unwilling to accept authority or responsibility for ongoing issues.

Risk communication must also ensure that potential participants are informed about risk management processes and that they become involved in a sustained and meaningful

manner (Höppner et al., 2012). Many communication efforts seek to increase people's knowledge and awareness about various hazards and, ultimately, get them to alter their behaviour so as to mitigate against risks (Höppner et al., 2012). Face-to-face communication appears to be more influential than mass media approaches in terms of changing public attitudes and behaviour (Moser, 2010). For example, Parker et al. (2009) found that older people in the United Kingdom had a more positive response to face-to-face interactions with flood wardens that they did with other forms of communication (e.g. dial-and listen flood warning services). Other authors argue that risk communication is less about using 'the right' communication mechanism, and more about ensuring that the message being communicated rhyme with recipients' worldviews. The message being conveyed must addresses relevant aspects of how risks are perceived by target groups (Rowan, 1994; Kolkman et al., 2005; and Uskul and Oysermann, 2010), or must appeal to their emotions about, or experiences of, a risk (Manojlovic and Pasche, 2008). Fostering preparedness is, therefore, dependent on the public being receptive to the message being conveyed and the importance they attribute to it (Motoyoshi, 2006; Flannery et al., 2015).

2.2 Public perception of risks

How risk information is assessed and deemed important is dependent on an individual's judgement or perception of that risk (Miceli et al., 2008). Perceptions are based on an individual's circumstances, their knowledge of a risk, their personal beliefs, social norms and a consideration of the possible impacts that any action might have on themselves and others (Shackleton, 2010). Risks need to be communicated in a manner in which the target community will understand, so as to illicit a response or action. In a study of risk perception, it was found that people were more likely to understand risk when presented with a set of potential consequences of floods, rather than when given statistical

probabilities of floods occurring (Miceli et al., 2008). Assessing what intended target audiences know, believe and value is a key requirement for designing effective risk communication messages (Bier, 2001).

2.3 Two-way dialogue

Sustained and meaningful public participation in risk management has been found when planners employ participatory mechanisms that allow for two-way dialogue between the public and experts (DEFRA, 2004; Stevens et al., 2010). Two way dialogue within the risk management process can serve to enhance mutual learning and respect between the public and experts (Bradbury, 1989). Simultaneously, it can aid in rational decision-making in situations where uncertainty is part of the risk (Renn, 1999). In the USA, Brody et al. (2003) found that utilisation of community forums had a positive correlation with the number of community groups involved in plan-making, indicating that groups were more likely to respond to public forums as a means of participation than other established methods. The assistance of local champions can also have a positive impact in terms of fostering two-way dialogue (Deeming, 2008). A study of community participation and risk perception found that engagement with the public through local champions improved information gathering, assisted the development of communication strategies and enhanced implementation of flood response plans (Richardson et al., 2003).

2.4 Critiques of participatory risk management

While participation in flood risk management is conceptually appealing, it is often difficult to implement. Public participation may also lead to a 'tyranny of localism' and fail to include those most marginalised in society, favouring instead key stakeholders, experts and influential local actors (Lane and Corbett, 2005; Fischer, 2006). Rather than

ushering in a new era of public participation, the emerging risk management strategies are often described as providing an appearance of inclusion and diversity to what is invariably an exclusive policy process, dominated by elite groups (Raco, 2000). Growing alienation and considerable disparity, in terms of influence, between flood experts and policymakers, on one hand, and the public, on the other, have been highlighted as major issues. Public input is often overlooked during the development of plans (O'Sullivan et al., 2012) and 'experts' still dominate the development of flood policies (Brown and Damery, 2002). This disparity can lead to agencies adopting tokenistic participatory approaches, resulting in meaningless engagement that satisfies neither participatory nor instrumental goals (Few et al., 2007). Furthermore, many processes categorised under the blanket term 'participation' are merely designed as unidirectional communication mechanisms that provide information to the public but do not allow for two-way, meaningful engagement; or are tokenistic measures implemented to build support for pre-determined decisions, allowing the public little opportunity to exert real influence on decision-making processes (Fordham, 1999).

Beyond a lack of tangible benefits for the public, questions have been raised about the very purpose of participatory risk management. Critical assessments of risk management argue that policies espousing public engagement are less concerned with participatory decision-making, and are more focused on public responsibilisation of risk and self-preservation of government agencies (Johnson and Priest, 2008). Responsibilisation is a strategy, whether implicit or explicit, wherein the state seeks to transfer responsibility for a policy issue to individuals and private organisations (Garland, 1996). Major issues arise when a shift in risk responsibility occurs without the consent or knowledge of affected communities. These shifts usually leave responsibility gaps, with governance agencies

assuming that these will be filled by communities, without full consideration of whether they are suited to these new purposes. In terms of flooding, adoption of a responsibilisation strategy by government agencies shifts the onus for flood risk preparedness away from the state and toward the general public (Hutter et al., 2014). Rothstein et al. (2006) argue that responsibilisation approaches also enable government agencies to manage risks to themselves in terms of reputation, accountability and legitimacy. In a review of the Department for Environment, Food and Rural Affairs (DEFRA) in the UK and its widespread use of risk management tools, Rothstein and Downer (2012) argue that the use of these tools is aimed at enhancing and protecting the department's reputation and legitimacy, rather than on managing public risks.

3. Flood Risk Management in Northern Ireland

Flood risk management is a devolved responsibility in the UK. This means that flood risk management directed independently by the devolved regional governments in Scotland, Wales and Northern Ireland. At the time of the study, the Department of Agriculture and Rural Development (DARD) was responsible for implementing the Floods Directive and did this centrally through its Rivers Agency[2]. The Rivers Agency has responsibility for coordinating Directive requirements across all relevant bodies including local councils, sewage and water undertakers, the Fire and Rescue Service Board and other government departments.

[2] The Rivers Agency was established on 1st October 1996 as part of what was then the Department of Agriculture Northern Ireland (Allen, 2011) and latterly DARD. Recent departmental changes have resulted in the DARD being renamed Department of Agriculture Environment and Rural Affairs (DAERA) with the Rivers Agency transferring to the new Department for Infrastructure. Local government had little or no remit in the areas of flood risk management and planning as both were, until 2015, central government competencies.

There are three separate flood water drainage authorities in Northern Ireland, the Rivers Agency, Northern Ireland Water and Transport Northern Ireland, each responsible for different aspects of flood water (PEDU, 2012). As well as its coordinative role, the Rivers Agency provides material and manpower assistance to other agencies in flooding events, maintains the free flow of watercourses and inspects specifically designated watercourses, grilles, culverts and sea defences (Allen, 2011). The Rivers Agency is also responsible for implementing participatory aspects of the Directive. Northern Ireland Water is responsible for public sewage systems, and Transport Northern Ireland is responsible for maintaining gullies, gratings and drains (DRD, 2014). Importantly, none of these agencies have a statutory obligation to respond to flooding incidents outside of their duty to maintain and protect the infrastructure assets listed above (PEDU, 2012).

4. Study Area

Belfast Metropolitan Area is home to approximately 40% of the population of Northern Ireland, approximately 37-50% of Northern Ireland's work-force and a quarter of all Northern Ireland businesses (DOE, 2004; McIbbin, 2010; Brown, 2009). In Belfast, factors such as increasing housing density, an antiquated drainage system and development in unsuitable locations have all contributed to regular flooding incidents in parts of the city. Decreased spending on infrastructure due to the ethno-nationalist conflict[3] in the city during 1960s-1990s resulted in an inadequate and out-dated combined

[3] A period of escalating violence amongst the predominantly Protestant Loyalist paramilitaries, who wanted Northern Ireland to remain part of the United Kingdom, predominantly Catholic Nationalists paramilitaries who wanted a United Ireland, and the UK security and armed services. This period is commonly referred to as 'The Troubles' in Northern Ireland.

drainage system being unable to cope with increased development and population growth in many areas.

Sicily Park, a residential area that has experienced highly publicised pluvial flooding events in recent years (UTV, 2012, 2014; BBC, 2014; The Irish News, 2014; NI Water, 2013), was chosen for in-depth study (see Fig. 1). Sicily Park has a history of significant and recurrent flooding. Of particular note was the flooding event of June 2012, when 44mm of rain fell in less than three hours. During this flooding incident, pluvial water overwhelmed the drainage system, resulting in a loss of road access and two incidents of sewage overflow in Sicily Park within four days (Belfast City Council, 2014; Ainsworth, 2012; BBC, 2012). A report for Belfast City Council in 2014 designated Sicily Park as a priority flooding area, identifying 18 houses affected by surface water flooding. The report also highlighted that Sicily Park contained the highest number of properties of any priority area on the DG5 register[4] (Belfast City Council, 2014). A study focusing on Sicily Park, therefore, provides an opportunity to evaluate the capacity of participatory mechanisms, introduced in response to the Floods Directive, to meaningfully involve those persistently impacted by flooding.

[Insert Fig. 1 near here]

5. Methodology

Document analysis, non-participant observation, a questionnaire survey and interviews were employed in this study to examine discourses and practices of participation in flood

[4] The DG5 Register identifies properties at risk of flooding more frequently than once in twenty years, and groups them according to three designations: one event in twenty years, one even in ten years, or two and above events in ten years (NI Water, 2014)

risk management in Belfast. The analysis focuses on how public participation was portrayed in government discourse, how it was operationalised in practice, and study participants' perception of flooding and their willingness to engage with participatory processes

Flood risk management legislation, policy and guidance were thematically analysed to assess official discourse relating to public participation. Documents analysed included: the *Floods Directive* (EC, 2007)*; Common Implementation Strategy* (EC, 2002)*; The Water Environment (Floods Directive) Regulations (Northern Ireland) 2009;* the *Local Flood Forums- Terms of Reference* (DARD, n.d b); Local Flood Forum meeting minutes (DARD, 2013, a; b); and *The North-Eastern Flood Risk Management Plan* (DARD, 2015).

Structured observation is a research method in which events are observed by non-participants and recorded, coded into meaningful units and then interpreted (Dane, 1990). Direct observation is advantageous in providing the context of particular phenomena being examined. An observer may learn about certain aspects that cannot, or will not, be disclosed in interviews, questionnaires, or in recorded minutes of meetings (Neutens and Robinson, 2010). The second meeting of the North Eastern Local Flood Forum in Belfast was observed by the lead author on the 4th September 2013. Structured observation of this meeting provided an opportunity to examine how decision-making authorities conceptualised public participation and communication. The meeting was not open to the general public and permission to attend had to be obtained. Detailed hand-written notes were taken, as it was not possible to record proceedings. Forum attendees were aware of the invite extended the researcher to attend the meeting.

Questionnaires are recognised as being an essential tool for assessing public perception of natural hazards (Bird, 2009). Survey questions were a mixture of open-ended response, multiple response and Likert-scale questions related to key elements of receptivity and perception, including: perception of flood risk; understanding of flood governance structures; communication and information provision; and representation and opportunities to participate. The questionnaire was distributed door-to-door in August 2013 and then collected at a pre-arranged time. A total 172 surveys were distributed, one to each household in the study area, with 64 households responding within the specified timeframe.

Door-to-door distribution of the questionnaire also provided an opportunity to purposively recruit interviewees among those most impacted by flooding. During the collection phase, residents who indicated in the questionnaire that they had experienced severe flooding[5] were asked if they would be willing to be interviewed about their experiences, resulting in four residents being interviewed at a later date. Semi-structured interview questions focused on their flood experiences and their engagement with flood risk management processes.

6. Findings

This section presents findings relating to the discourse and practice of participatory flood risk management in Belfast. Analysis of key document and observations made at the floods forum meeting are presented in the first instance. This is followed by a presentation of survey findings.

[5] The questionnaire guidance characterised severe flooding as any that resulted in damages of £200 or more or resulted in higher insurance premiums.

6. 1 Discourse of participation

Flood risk management in Belfast is framed by both EU and national legislation. This section reports analysis of key flood risk management legislation, policy, guidance and documents relating to local flood forums, in terms of the discourse and practice of participation.

6.1.1 The Floods Directive and Common Implementation Strategy

The Floods Directive requires EU Member States to encourage interested parties to become actively involved in the production of risk management plans:

> *Member States shall encourage active involvement of interested parties in the production, review and updating of the flood risk management plans"* (emphasis added) (2007/70/EC Article 10 (2)).

The Floods Directive does not, however, define who should be considered 'interested parties', or who should actively participate in management processes, nor does it stipulate the type of participatory mechanisms Member States should use.

A guidance document on public participation was prepared as part of the *Common Implementation Strategy* (CIS) for the Water Framework Directive (WFD) (EC, 2002). As the WFD and Floods Directive are closely aligned, the European Commission views the CIS as also supporting implementation of the Floods Directive (EC, 2016). The Commission stresses that the CIS represents an informal consensus position. The CIS is non-binding, and should be considered a good practice guidance document.

While the Floods Directive is vague on definitions regarding who should participate and how, the CIS is much less ambiguous. The CIS defines stakeholders as:

> *Any person, group or organisation with an interest or "stake" in an issue, either because they will be directly affected or because they may have some influence on its outcome. "Interested party" also includes members of the public who are not yet aware that they will be affected (EC, 2002 p. 11)*

The CIS argues that participatory mechanism should move beyond tokenistic consultation processes and facilitate active public participation in the implementation of the Directives:

> *active involvement is not the same as consultation. Consultation means that the public can react to plans and proposals developed by the authorities. Active involvement, however, means that stakeholders actively participate in the planning process by discussing issues and contributing to their solution (EC, 2002 p.10)*

The CIS also argues that by being involved in meaningful participatory processes, the public should gain a degree of influence over management processes, *but* that this should not lead to the public assuming water management responsibilities:

> *Essential to active involvement is the potential for participants to influence the process. It does not necessarily imply that they also become responsible for water management* (EC, 2002, p.10)

According the CIS, it is insufficient for water management authorities to merely garner the reaction of the general public to pre-prepared draft plans. Rather, water management authorities must identify interested parties and proactively engage them in management processes, without forcing these parties to bear responsibility for water management issues.

6.1.2 The Water Environment (Floods Directive) Regulations (Northern Ireland) 2009

The *Water Environment (Floods Directive) Regulations (Northern Ireland) 2009* transpose the Floods Directive into Northern Ireland legislation. The regulations outline the Rivers Agency approach to public participation. Whereas both the Floods Directive and the CIS refers to those eligible to participate under the more general terms of 'interested parties' or 'stakeholders', these regulations explicitly state that the *general public* must be given opportunities to actively participate in decision-making processes:

> [DARD will] *take such steps as it considers appropriate to provide opportunities for the general public and the persons and bodies referred to in paragraph (4)*[6] *to participate in discussion and the exchange of information or views in relation to the preparation of the plan and provide opportunities for the general public to participate in the discussion* (Section 19 (2) (d.)).

In this regard, the *Water Environment (Floods Directive) Regulations (Northern Ireland) 2009* reinforces the participatory elements expounded by the Floods Directive and the *Common Implementation strategy*, and provides a strong obligation for active public participation and two-way dialogue.

6.1.3 Local Flood Forums

To meet the participatory requirement of the Floods Directive, the Rivers Agency established three Local Flood Forums: Neagh-Bann Local Flood Forum; North Western Local Flood Forum; and North Eastern Local Flood Forum. Belfast is located within the North Eastern Local Flood Forum area. According the *North-Eastern Flood Risk Management Plan* the three aims of the forums are to:

[6] Paragraph 4 lists these bodies as: *"A Northern Ireland department, each district council, each water undertaker, each sewerage undertaker, each implementation body and the Northern Ireland Fire and Rescue Service Board"* (Section 4 (1)).

- raise the general awareness of flooding at the local community level and to input into the aims and objectives of the Flood Risk Management Plans;
- create the opportunity for all groups, organisations and individuals to share their knowledge and experience of local flooding with decision makers; and
- contribute to the development of flood mitigation solutions that are affordable, appropriate for the local area and support the environmental objectives of the Water Framework Directive (DARD, 2013b).

In documents relating to the functioning of the forums, the discourse of participation states that the public should play a central role in risk management processes. The documents indicate that forums would not be vehicles through which DARD could present preformed plans to the public for their approval, but, rather, that the forums would enable the public to actively participate in flood management processes. Furthermore, the discourse in key forum documents indicate that the forums would be widely advertised. The *Local Flood Forums- Terms of Reference* states that forum meetings would be widely publicised in *"a manner calculated to bring these to the attention to the public and local community groups with an interest in flood risk management"* (DARD, n.d. b. p. 1).

The official discourse portrays the local flood forums as vehicles for actively engaging the public and for fostering two-way dialogue:

> *The main channel for engagement with the public and local groups with an interest in the development of FRMPs* [Flood Risk Management Plans] *shall be through the Local Flood Forums* (DARD, n.d. b. p. 1).

Furthermore, the opening preamble of the minutes from the first two forum meetings also places particular emphasis on ensuring public involvement:

> *The primary aim of the Local Flood Forums is to comply with the Department's obligations under the Directive to take such steps as it considers appropriate to provide opportunities for the general public and such persons as it considers necessary to participate in the discussion and the exchange of information or views in relation to the preparation of the Flood Risk Management Plans* (DARD, 2013a p. 2; 2013b p. 2).

6.2 Practice of participation

It is clear that the discourse about the forums is on the active participation of the general public and community groups. Analysis of the minutes of forum meetings and observations made by the lead author during a forum meeting illustrate, however, that public participation in the forums was very limited.

Minutes of the inaugural form meeting states that it consisted of two sessions (DARD, 2013a). The first session involved presentations from government departments on key issues such as current research, flooding and the environment, urban drainage and emergency planning (DARD, 2013a). The aim of the afternoon session was to: establish the role of the Local Flood Forum (purpose, terms of reference, membership, meeting frequency and location); explain the Preliminary Flood Risk Assessment/ Significant Flood Risk Areas/ Areas of Further Study; demonstrate a stakeholder viewer, and generic policy templates and modelling outputs (DARD, 2013a). While the morning presentation session was open to the public, the afternoon session, in which key information and important aspects of future meetings were discussed, was not. Furthermore, details of the debates and discussion during the second session are not comprehensively recorded in the minutes of the meeting, which state that *"most of the discussion was led by the chair persons and it was decided that a formal minute of the meetings was not necessary"*

(DARD, 2013a p.6). Instead, the minutes provide what is described as a 'composite record of the substantive views and comments'.

The second forum meeting, attended by the lead author, also consisted of two sessions. The second forum meeting also opted for a 'composite record of the substantive views and comments' in lieu of detailed minutes. The aims of the first session were to refresh members' understanding of the Floods Directive programme, provide a general update on the process, present progress reports on the delivery of flood hazard and flood risk maps and of the development of Settlement Flood Risk Referral Forms, and to seek members' views and comments on policy developments within the process. The second session focused on the implementation of an Individual Property Protection (IPP) scheme, experiences of community engagement and how best to communicate with the public.

There were no local or community groups represented at the second meeting of the forum, which addressed the issue of community engagement. Fifteen of the thirty-one attendees represented national government departments including the Rivers Agency, Environment Agency, Roads Service (Eastern and Western divisions) and NI Water. There was a representative from the police service and five attendees were elected local councillors. Four attendees were from the Southern Group Environmental Health Committee, and there were also representatives from Northern Group Systems Environmental Health Consultants, Ulster Farmers Union, Red Cross, Consumer Council, Freshwater Taskforce and Association of British Insurers.

During this meeting, the Rivers Agency recognised that communication with the wider public had been inadequate to date. A Rivers Agency representative stated that while the

public may not be completely aware of all of the technical issues surrounding flooding, they are more than capable of identifying problems in their areas that need to be addressed and that existing processes have not capitalised on this. Other forum members considered the materials provided to the public to be excessively technical. For example, one commented that "the person on the street" does not understand the implication of "a one in one-hundred/fifty/thirty event " and could easily misinterpret the information that had been circulated and be unduly alarmed to see their houses in, "what is in reality, a low risk area but which is viewed as flood prone" due to a lack of understanding, and that there was a need to introduce clarity to the process:

> *This* [flood risk mapping] *could create real fear among the lay population which in reality is unnecessary. The system needs to be made much clearer from the basis of what we've seen today* (Forum Member).

Other discussions at the forum reveal the existence of a responsibility shifting mentality. One of purposes of the forum, which was stated at the meeting observed, was to develop a ‘united front' with regard to public perception of flood management and to overcome the ongoing issue of agencies passing problems to other authorities and for blaming one another for controversies. One Rivers Agency representative addressed the need for agencies involved in flood risk management to work together to develop this united front and to stop shifting blame:

> *This is your plan, not the Rivers Agency Plan. In future, there is no scope for firing rockets at each other* (Forum Member).

Plans for the IPP scheme were proposed in which the cost of practical flood preparedness measures, such as installation of stop-valves in toilets and door-way flood barriers, would be subsidised by the government. The agency representatives, however, were primarily concerned with who would be responsible for implementing the scheme and therefore

taking on the associated costs. As a result of this there was little appetite for leading this initiative[7]. One forum member commented on this, stating, *"no one wants to take responsibility for anything"* (Forum Member).

6.3 Public experience of participatory flood risk management

The following sections present the results of the questionnaire survey and interviews in Sicily Park. Findings focus on study participants' flooding experiences; understanding of flood governance structures; perceptions of flood risk communication and information provision; and opinions regarding representation and participation in the flood risk management process.

6.3.1 Flooding experiences

Survey respondents were asked about their past flooding experiences and to rank the severity of flood impacts on a three point scale: minimal (traffic disruption, etc.); moderate (superficial water damage less than £200); and severe (damages above £200 or higher insurance premiums). 89% (n=57) of respondents have been affected by flooding in recent years. 57.8% (n=37) of respondents have been only minimally affected, citing the main impacts as traffic disruption, the inability to get to and from homes and waterlogged gardens. The flood impacts experienced by the 18.8% (n=12) of respondents who reported being 'moderately affected' by past flooding included internal dampness and damage to gardens, some of which required minor insurance claims. In the 12.5% of 'severely affected' respondents (n=8), the major issues included: having to vacate homes for long periods of time (6 months+); major structural repairs; replacing electrical

[7] *An IPP scheme is yet to be implemented at time of writing.*

appliances and boilers; and higher insurance premiums and excesses. The impact of repeated flooding on insurance costs were such that three of the four interviewees stated that they paid for repairs themselves rather than submit insurance claims and risk further increasing their home insurance premiums.

Respondents were asked who they consider to be the competent authority for flood risk management (see Table 1). As described above, the delineation of roles is complex, and this is reflected in the public responses regarding who they considered to be the competent authority, with opinions relatively evenly dispersed among Northern Ireland Water (31.3%, n=20), the Rivers Agency (25%, n=16) and 'do not know' (26.6%, n=17).

[Insert Table 1 near here]

One interviewee commented that they think there is confusion amongst government agencies as to who is responsible for particular aspects of flooding:

> *Even they seem unclear about who is responsible for what. For example, once surface water enters the interior of a property it is then technically classed as sewage and responsibility passes from one department to another* (Interviewee A).

When asked about how their concerns were addressed by local agencies, one interviewee stated they had not been and that the burden in relation to addressing ongoing flooding issues lay with individual home owners:

> *I still have major concerns about the extent of waterlogging in both of the back gardens but nobody cares. Private property, private problem* (Interviewee B).

6.3.2 Communication and information provision

Respondents were asked about the adequacy of the information they received about flooding in the area. 76.6% (n=49) of respondents considered the information provided to be inadequate, while only 14.1% (n=9) considered the information adequate, with 9.4% (n=6) being unsure. Respondents were asked to list sources of flood management information. 87.5% (n=56) of survey respondents did not list any sources. The most common source of information, listed by seven survey respondents, was information disseminated by a local champion who obtained it by vigorously pursuing government departments. Sources listed by the remaining respondents included: government agency websites; the Rivers Agency flood-maps; flooding hotlines; local politicians; and public meetings.

Survey respondents were asked how they would like to be communicated with in the future: 78.1% (n=50) would like to be contacted directly, either via post or direct communication, through for example a door-to-door campaign; 12.5% (n=8) would like to be contacted through the media; and 9.4% (n=6) through community groups and their local political representatives.

6.3.3 Representation and opportunities to participate

A significant proportion of the respondents do not feel they have been represented to a satisfactory extent in flood risk decision-making processes in their area. 60.9% (n=39) stated that they are not being adequately represented, 28.1% (n=18) believed that current representation is adequate, while the remaining 11% (n=7) did not respond.

Politicians were considered to be the best option for future representation in flood management processes by over half of respondents (53.1%, n=34). Surprisingly, given

the role played by one resident in acquiring and distributing information, only 29.7% (n=19) of respondents wish to be represented by a willing community member, while 15.6% (n=10) think that the public do not need any input into the process.

Questionnaire respondents were given an opportunity to provide further details regarding participation. Respondents commented that they feel public meetings are not widely publicised and are not effective in delivering promises. Another common sentiment was that they had not been adequately consulted by any of the competent authorities about their opinions or experiences. Respondents asserted the belief that they had been abandoned by government departments and agencies and that the assistance they had received was limited, short-lived and only obtained by attracting political attention to their plight through the media. This negative perception of participatory processes was also evident among interviewees, who highlighted meetings organised by government departments and emergency services as examples of short-lived engagement and unfulfilled platitudes:

> *The police and the fire service and water services came in and talked about setting up all of these groups and said that this and that could happen, but none of this ever materialised, it just seemed to be a way of satisfying people at the time* (Interviewee B).

73.4% (n=47) of respondents were not aware of the Local Floods Forum as a means of participating in the decision-making process. However, when informed about the forum, 46.9% (n=30) of respondents expressed a desire to participate in the future, while 53.1% (n=34) did not. Discounting those only minimally affected by flooding, 80% (n=16) of those moderately and severely affected wished to participate. Surprisingly, an interviewee who regularly and pro-actively acquires and disseminates flood information to fellow

residents was also unaware of the forum. Having been informed of the forum's function, however, he expressed a keen interest in future participation.

7. Discourse-practice gaps

The Floods Directive has ushered in a new participatory approach to the management of flood issues. The Directive does not, however, specify who should participate in risk management processes or how participation should be facilitated. Although the CIS provides some guidance, Member States are free to develop their own participatory approaches and define who may participate. On paper, the approach being adopted in Northern Ireland appears to be highly participatory. The discourse in Northern Ireland legislation and policy focuses on the active participation of the public through local flood forums. However, similar to the criticisms of risk management approaches being adopted elsewhere (Few et al., 2007; Krieger, 2013; Rothstein et al., 2013), the participatory approach being implemented in Belfast is, in practice, very narrow and tokenistic.

Participatory opportunities and the roles of the various agencies involved in flood risk management have not been clearly communicated to the public. The absence of a clear communication strategy was recognised at the North Eastern Local Flood Forum. Current processes are inadequate in terms of communicating and engaging with the wider public and that elite stakeholders and experts (Brown and Damery, 2002) dominate the flood risk management process in Belfast. Although better public communication was discussed at the forum, there has been no real indication that the lack of community representatives within the process is a concern in need of being addressed.

While the discourse of participation in legislation and policy documents is one of active public engagement, the practice of participation, as demonstrated in the local flood forums, actively excludes the general public. Furthermore, the majority of residents surveyed were unaware of the forum. Rather than function as the 'main channel of public participation', the forums focus on coordinating cross-agency actions and involve only elite stakeholders. The discourse of participation in key Northern Ireland flood risk documents, therefore, creates the 'illusion of inclusion' (Few et al., 2007) and of apparent opportunities for two-way dialogue. However, unlike the approach advanced by proponents of participatory risk management (van Aalst et al., 2008; Geaves and Penning-Rowsell, 2016; Usóna et al., 2016), there is little or no attempt to place stakeholders at the centre of decision-making processes in Belfast or to develop meaningful two-way dialogue with the public. While the Local Flood Forum provides a readymade means of actively involving the public in flood management processes, the forum has purposely not tapped into the general public's willingness to participate in the flood risk management process and actively excludes the public from key forum sessions.

As well as failing to provide for two-way dialogue or the direct participation of the general public, the local forums suffer from a representation deficit. While Sicily Park residents indicated that they would like to participate in the local flood forum, over half of respondents expressed a preference for political representation, even though political representatives on the forum have clearly failed to communicate their membership to their constituents. The preference for political representation contradicts the dominant participatory paradigm (Mitchell, 2006; Richardson et al., 2003; Farrelly and Brown 2011) that suggests people favour community-based representation, for example though local champions. A possible factor for a preference for political representation is the

ongoing societal division along ethno-national lines, which continues to be a major defining characteristic of public life in Northern Ireland (Murray and Murtagh, 2004). It is clear, therefore, that the politicians who are currently members of the forum need to communicate their membership to their constituents and act as a conduit between the public and the forum.

Study participants and some agency representatives believe that current risk management processes can be characterised as having a responsibility-shifting mentality (O'Sullivan et al., 2012). Maintaining ambiguity about agencies roles within flood risk management makes it too easy to deflect public inquiry. This study illustrates how the adoption of participatory risk management may be a strategy to rationalise the limit and scope of government action and a way of containing and controlling how agencies interact with the public (Krieger, 2013; Rothstein et al., 2013). It demonstrates that the aim of shifting responsibility from government agencies onto the public is often hidden behind the empty rhetoric of participation (Kelly and Caputo, 2011) and it is sometimes difficult to distinguish genuine participatory practices from responsibilisation processes. Clarity on the exact nature of roles and responsibilities must be provided for each agency involved in flood risk management.

The limited scope of actions ascribed to relevant agencies, combined with poor communication and tokenistic participation, means that risk management processes adopted in Belfast can be characterised as a responsibilisation, rather than a participatory, process. Unlike other parts of the UK, information on agency responsibilities is not readily available in Northern Ireland. The Floods and Water Management Act (2010) in England and Wales, for example, clarifies who is responsible for each aspect of flood

risk, from the coordinating body, to the local authorities and the drainage boards. The integration of similar information into flood risk management policy in Northern Ireland would provide clarification of roles.

Flood management processes in Belfast do not provide for two-way dialogue between flood 'experts' and the public, have not been clearly and widely communicated to those habitually impacted by flooding issues, fail to capitalise on favourable public perceptions and awareness, and may function more as mechanisms of responsiblisation than participatory processes. There is, therefore, a need for other studies to critically assess participation in specific policy contexts (Moulaert et al., 2009).

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Fig. 1 Belfast: Sicily Park Location

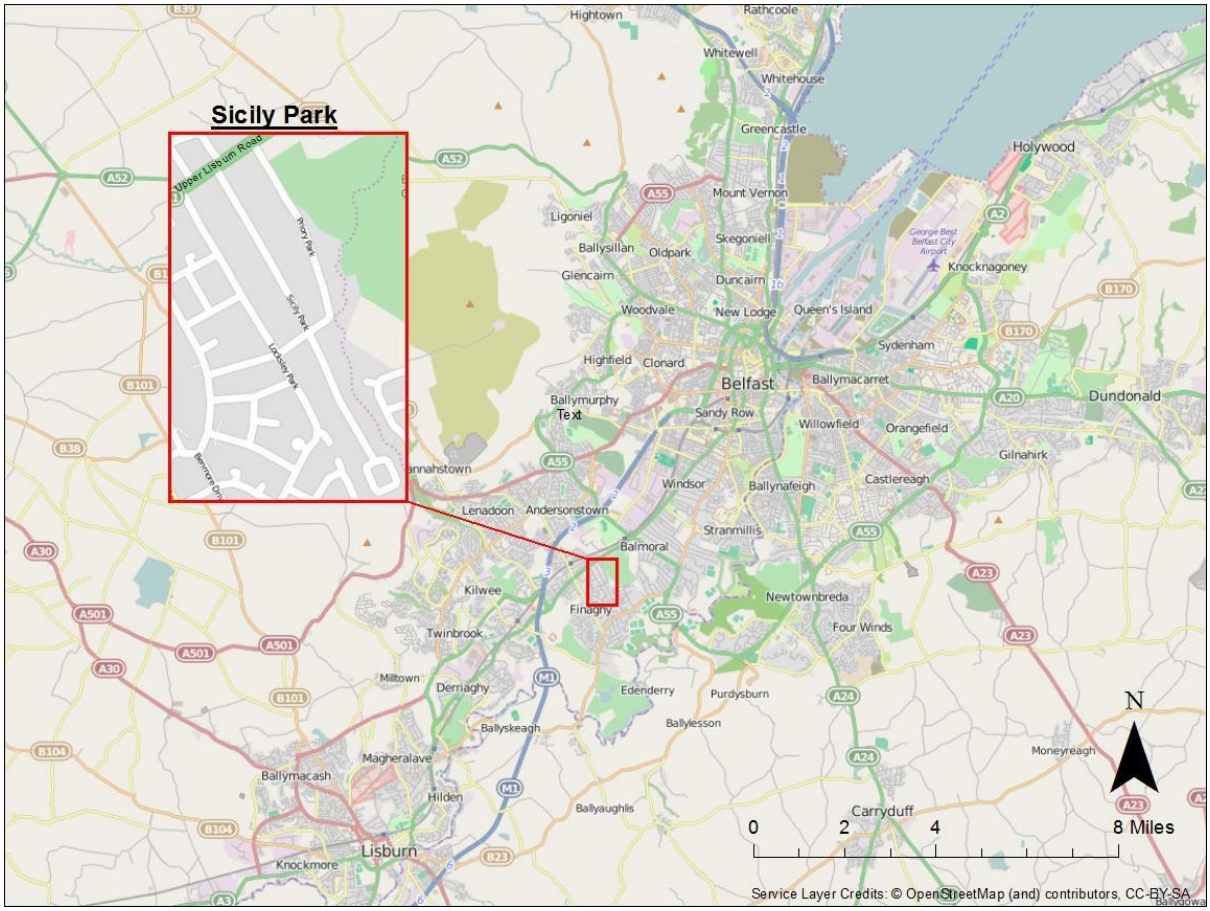

Table 1. Competent authority for flood risk management issues

Department/Agency	%
NI Water	31.3
Don't know/blank	26.6
Rivers Agency	25
DRD	6.3
DOE	6.3
Council	4.7